REMARKS/ARGUMENTS

In the pending non-final Office Action mailed August 3, 2007, claims 1-5, 9, 11, 12, 14-17, and 19 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,256,675 to Rabinovich in view of U.S. Publication No. 2001/0002472 to Kanai, and further in view of U.S. Publication No. 2004/0221024 to Yamada. Claim 18 was rejected under 35 U.S.C. § 103(a) as unpatentable over Rabinovich, Kanai, and Yamada, and further in view of U.S. Publication No. 2006/0036892 to Sunna. Claim 16 was objected to for a typographical error. In this amendment, the independent claims have been amended to include features that define over the art of record. Claim 16 has been corrected and new claim 20 has been added. Further examination and reconsideration of the application as amended are requested.

Claim Amendments

The invention relates to more efficiently allowing network client computers to access files managed by a file server, wherein a client request for a file that has been migrated from the first file server to an auxiliary (second) server is directed to the auxiliary server rather than the first file server, based on an advertisement packet that indicates the migrated location of the requested file. The claims as amended will be described with reference to Fig. 1 and Fig. 15, as well as pages 33 to 37 of the specification. In Fig. 15, a source server computer 105C ("first computer of claim 1) has migrated a file to a migration target server 105A ("second computer"). A client computer 103C ("third computer") requests a file from the source server 105C, not knowing that the requested file has been migrated to the migration target server 105A.

In accordance with the claimed invention, an advertisement packet is transmitted to the third computer (client computer 103C) indicating that the file is transferred to the second computer (migration target 105A). The path name to the second computer is stored and the third computer (client 103C) accesses the file via the first computer (migration source 105C) based on the path name when the first computer receives the request for the file after the file has been transferred to the second computer (105A).

Taking claim 1 as an example, a feature added by this amendment is that the system includes:

> a module for transmitting an advertisement packet to the third computer either after or before the file is transferred to the second computer, the advertisement packet indicating that the file is transferred to the second computer.

Another feature added to the independent claims by this amendment is the feature that the system includes:

> a module for allowing the third computer to access the file via the first computer based on the information and the path name when the first computer receives an access request for the file after the file has been transferred to the second computer.

These features are supported by, for example, Fig. 15 and the corresponding description. In other words, a file may be transferred from the first computer to the second computer "after or before the advertisement packet is transmitted from the first computer." Thus, even if the third computer accesses the first computer after the file is transferred from the first computer to the second computer, the third computer can access the transferred file via the first computer. With this feature, a file access is achieved even if the client 103C does not know the migration issued the access request packet to the file server 105C or does not receive the advertisement packet.

That is, if a target file on a file server in a network is hiqh1y accessed, then the file server searches another network which a client accessing the target file belongs to, and searches an appropriate file server in the proximity of the client in another network, such that the file server migrates the target file to the appropriate file server. This maintains a consistency of data, to incur no overhead and to reduce traffic between networks. See, for example, Fig. 5 and the corresponding description at page 27, line 12 through page 28, line 5.

It is respectfully submitted that the cited references do not teach or suggest either of these features.

Office Action References

Rabinovich

Rabinovich merely describes an access (request) distribution method wherein replicas to be accessed are migrated, deleted, and copied according to a frequency of accesses. Rabinovich describes that plural replicas are moved/created to distribute access requests for an object and to manage the placement among replica hosts. The claimed invention, in contrast, improves accessibility to a file of a file server distant from the client, to maintain a consistency

of data, to incur no overhead, and to reduce traffic between networks. It is submitted that the module for transmitting an advertisement packet and the module for allowing the third computer file access via the first computer support such features. Since Rabinovich relates to the distribution of access requests and not to accessibility of files, Rabinovich does not anticipate the claimed invention.

The technique of Rabinovich can cause network traffic to increase. Rabinovich requires synchronization between replicas on entities. Thus, the consistency control process takes a longer time as the distance between a computer storing an original/replica and a (remote) computer storing a replica gets longer. Furthermore, in cases where the original file(s)/replica are updated frequently by one computer, the consistency control process is also required more frequently, and therefore the latency can be significantly increased. Nevertheless, Rabinovich neither teaches nor suggests the features recited in the amended independent claims.

Kanai

Kanai relates to a system for certifying that electronics information is released on the Internet. Kanai merely describes that predetermined electronics information stored in a predetermined computer is accessed at predetermined intervals to collect status of the electronics information. However; Kanai neither teaches nor suggests the features of the independent claims, as amended. As such, Kanai does not make up for the deficiencies of the other references with respect to the claimed invention. Further, Kanai does not provide a motivation to combine with the other references.

Yamada

Yamada relates to the setting or restoring of the environment of a client computer after replacing a hard disk with new disk. Yamada merely describes that a client 200 copies a log file (for setting the environment of the client) to a server 100 before rebooting of the client 200 and then, after the client 200 is rebooted, the log file is returned to the client 200 from the server 100. However, Yamada neither teaches nor suggests the features of the independent claims as amended.

Yamada does not provide a motivation to combine with the other references. That is, Yamada describes a copy used to facilitate data restoration, but Rabinovich describes a replica used to facilitate access from a client. Therefore, even if the cited references could be combined,

the combination teaches away from the claimed invention. The proposed combination causes the network traffic to increase, because the combination requires synchronization between replicas on entities. Since the technical fields of the cited references are different each other, it is submitted that there is no likelihood of successful combining and there is no motivation to make the proposed combination of the cited references.

Claims 1-5, 9, 11, 12, 14-17, 19 Are Not Rendered Obvious

Therefore, it is submitted that there is no suggestion for making the proposed combination, there is no likelihood of success for the proposed combination, and no combination of the references would provide the invention recited in the amended independent claims, comprising claims 1, 9, and 12. Thus, claims 1, 9, and 12 are not rendered obvious by the proposed combination of Rabinovich, Yamada, and Kanai, and are patentable over the art of record. For at least the reasons stated above, it is submitted that the claims dependent from claims 1, 9, 12 are also patentable, comprising claims 2-5, 11, 14-17, and 19.

Claim 20

Further, with respect to the newly added claim 20, the module for transmitting an advertisement packet is further defined in that "the first computer transfers the file to the second computer, according to the access request for the file or according to reduction of an amount of the access packet, after the advertisement packet is sent". In this way, the reduction of network traffic is enhanced. See, for example, page 27, line 12 through page 28, line 5 of the specification.

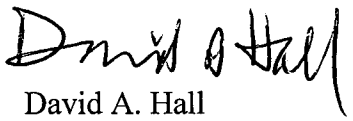
Thus, claim 20 recites that the actual file transfer can also be done at an arbitrary point after the broadcast of the advertisement packet, independently of the occurrence of access request. Even if the advertisement packet bas been transmitted to the third computer or has been broadcasted to devices in a network, the actual file transfer may be executed when the lower traffic of the network 101 is reduced or when the access request is firstly received from the client 103.

Therefore, it is asserted that claims 1-5, 9, 11, 12, 14-17, 19, and 20 are patentable over the references of record, and are in condition for allowance.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

Respectfully submitted,



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